

Enabling Factors in Biotech

General Questions

This survey aims to assess the *enabling factors involved in creating biotechnology companies*, particularly within iGEM. The survey is targeted to all past and current participants of iGEM. Advisors are welcome to take part, but please answer for the team you were involved with. Also, please answer the survey only once.

Participants will also receive a badge for their website as a sign of their helpful contribution. Please answer each question to the best of your abilities. We greatly appreciate your support!

Note: The questions that ask for a rating of 1 - 7 are to be interpreted as counting from left to right (far left = 1 and far right = 7).

Estimated Time of Completion: 10 minutes or less

* 1. In what country do you live?

* 2. How many people were/are on your team for the iGEM project?

- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ Over 20 people

* 3. What is your gender?

- ☐ Female
- ☐ Male

* 4. What is your age?

- ☐ 17 or under
- ☐ 18-20
- ☐ 21-22
- ☐ 23-24
- ☐ 24-25
- ☐ 26-34
- ☐ Above 34

* 5. What was your university/team during iGEM?

* 6. What year did you participate in iGEM?

7. On a scale of 1 (very low) to 7 (extremely high), how would you rate your Proof of Concept success for the iGEM competition? (*Proof of Concept = a realization of a certain method or idea to demonstrate its feasibility*)



* 8. Did you write a business plan during the project?

- ☐ Yes
- ☐ No
- ☐ We started but did not finish

* 9. On a scale of 1 (low) to 7 (high), how would you rate the quality of your business plan? *Choose 1 if you did not have a business plan*



* 10. On a scale of 1 (did not consider) to 7 (heavily considered), did you and your team consider starting a business during the project development?



* 11. Did you (or your teammates) found a business, or are you currently founding a business with your iGEM project?

☐ Yes

☐ No

* 12. If you won an award, which did you win?

☐ Bronze Medal

☐ Silver Medal

☐ Gold Medal

☐ Track Award

☐ Grand Prize

☐ Did not win an award

☐ Not yet won any awards (Current iGEM Participant)

☐ I do not remember

* 13. On a scale of 1 (low) to 7 (high), did you ever consider founding a start up (with a non-iGEM business idea) *before* participating in iGEM?



TEAM (ENTREPRENEURIAL SPIRIT/FUNCTIONALITY/RISK TAKING)

* 14. On a scale of 1 (low) to 7 (high), how do you perceive the entrepreneurial spirit (e.g. motivation to found a business) of your team?



* 15. On a scale of 1 (low) to 7 (high), how do you perceive the level of risk taking of your team?



* 16. On a scale of 1 (low) to 7 (high), how do you perceive the functionality of your team? (e.g. how well does everyone work together)



PRODUCT/PROJECT AND MARKET CHARACTERISTICS

* 17. Did you choose your project/product partly in order to have a viable/marketable product?

- ☐ Yes
- ☐ No
- ☐ Other (please specify)

* 18. On a scale of 1 (low) to 7 (high), how would you assess the *marketability* of your project/product?
(*marketability = a measure of whether a product will appeal to buyers and sell at a certain price range to generate a profit*)



* 19. On a scale of 1 (low) to 7 (high), how would you rate the *competitive advantage* of your project/product? (*competitive advantage = attributes of a product that allow it to outperform its competitors.*)



* 20. Does your project/product have a functioning prototype? (*prototype = an early sample/model of a product built to test a concept or process, or to act as a thing to be replicated or learned from*)

- ☐ Yes
- ☐ No
- ☐ Other (please specify)

* 21. On a scale of 1 (low) to 7 (high), how would you assess the market size of your product/industry?



* 22. On a scale of 1 (low) to 7 (high), how would you assess the overall market growth of your product industry?



* 23. On a scale of 1 (low) to 7 (high), how would you assess the *market competition* for your industry?



* 24. On a scale of 1 (low) to 7 (high), to what degree was your team actively involved in *knowledge exchange* with the industry related to your product?



* 25. On a scale of 1 (low) to 7 (high), to what degree was your team actively involved in *technology transfer* with the industry related to your project?



* 26. Has one or more of your iGEM supervisors/advisors founded a startup before?

☐ Yes

☐ No

☐ Other (please specify)

* 27. On a scale of 1 (no degree) to 7 (high degree), to what degree did your team consult an entrepreneurial/business advisor or take entrepreneurial courses for your iGEM project?



ACCESS TO RESOURCES AND FUNDING FOR PROTOTYPING & PRODUCT DEVELOPMENT

* 28. On a scale of 1 (low) to 7 (high), to what degree did your team have adequate *resources (lab, data, etc.)* for development of your project?



* 29. On a scale of 1 (low) to 7 (high), to what degree did your team have adequate *advising* for development of your project?



* 30. On a scale of 1 (low) to 7 (high), to what degree did your team have adequate *time* for development of your project?



* 31. On a scale of 1 (low) to 7 (high), to what degree did your team have access to customer/user feedback?



* 32. On a scale of 1 (low) to 7 (high), did your team have enough funding for your project as a potential startup?



* 33. On a scale of 1 (low) to 7 (high), how aware was your team of *VC/investor/incubator funding* for a potential startup?



* 34. On a scale of 1 (low) to 7 (high), how aware was your team of *government funding* for a potential startup?



* 35. On a scale of 1 (none) to 7 (high), did your team have enough *government funding* for your project as a potential startup?



* 36. On a scale of 1 (none) to 7 (high), to what degree did your team personally fund the project? *(relative to other forms of funding)*



* 37. On a scale of 1 (low) to 7 (high), did your team have enough overall funding for the project?



ACCESS TO LEGAL ADVISING/PATENTS

* 38. On a scale of 1 (low) to 7 (high), to what degree was your team in need of an attorney for legal advising/patent advising?



* 39. On a scale of 1 (low) to 7 (high), was it in your teams interest (as a potential business) to patent your product?



* 40. On a scale of 1 (relatively easy) to 7 (impossible), how possible do you think it would have been to patent your project/product (during/after iGEM)?



* 41. Did your team file a patent?

☐ Yes

☐ No

☐ Other (please specify)

* 42. On a scale of 1 (no influence) to 7 (extremely high influence), did iGEM requirements prevent your team from applying for/obtaining a patent in any way?



* 43. If you (and your team) had *not* taken part in the iGEM competition, would you have patented your product?

☐ Yes

☐ No

☐ Other (please specify)

44. If you tried to patent, were there any factors that specifically prevented your team from patenting?

* 45. If you (and your team) had *not* taken part in the iGEM competition, would you have marketed your product?

- ☐ Yes
- ☐ No
- ☐ Other (please specify)

ENVIRONMENT/CLUSTER

* 46. To your knowledge, is your region a cluster for biotechnology? (1 = not at all, 7 = extremely)

☐ ☐ ☐ ☐ ☐ ☐ ☐

* 47. On a scale of 1 (no support) to 7 (high support), to what degree was the support of the cluster in network/management of your iGEM project?

☐ ☐ ☐ ☐ ☐ ☐ ☐

* 48. On a scale of 1 (not at all) to 7 (fully accepted), to what degree would your product be accepted by society in your region?

☐ ☐ ☐ ☐ ☐ ☐ ☐

* 49. Did you have other opportunities to develop your project/product besides iGEM? (*Is/was iGEM the only program that you were aware of through which your team's project could be realized?*)

- ☐ Yes
- ☐ No

50. If yes, what program/organization/other was it?

51. If you did not found a company, what were the main reasons for not founding?

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Founders

The following questions are only for the iGEM teams that founded a business. Please answer to the best of your abilities.

* 52. Is the product still on the market?

- ☐ Yes
- ☐ No
- ☐ Other (please specify)

* 53. Did success (in this case winning an award at iGEM) influence your team's decision to found a startup?

- ☐ Yes
- ☐ No
- ☐ N/A (did not win an award)
- ☐ I do not remember

* 54. On a scale of 1 (low) to 7 (high), did your experience working in your team *positively influence* your decision to found a venture?



* 55. How many people from your team (that you are aware of) joined in founding?

- ☐ 100% of the team
- ☐ ~ 80% of the team
- ☐ ~ 60% of the team
- ☐ ~ 40% of the team
- ☐ ~ 20% or less of the team

* 56. Did your team's success (e.g. winning an award) in iGEM influence investors to found your start up?

☐ Yes, it was influential

☐ No, had no influence

☐ N/A

* 57. On a scale of 1 (low) to 7 (high), did your team have enough VC/investor/incubator funding for your business?



* 58. What were the main reasons for founding a company?

59. If you are still on the market, what were the main reasons the startup was successful?

60. If you are no longer on the market, what were the main reasons the startup failed?

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Open Questions

These questions are optional, but extremely helpful for our research. Thank you for your participation!

61. What enabling factors would improve your chances of entrepreneurial success? (i.e. a non-disclosure agreement, a talent pool of Synthetic Biologists at iGEM, etc)

62. What could be improved/implemented in iGEM to allow for greater entrepreneurial success?

63. Do you have any further comments regarding the survey you would like to share with us?

64. Would you be willing to spend a few extra minutes to discuss the survey further? If so, please provide an email so we can contact you. (We promise we will not spam you!)